PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of the existing traffic control signal at the intersection of MD 28 and Shady Grove Road in Montgomery County, Maryland. MD 28 is considered to run in an east/west direction.

II. INTERSECTION OPERATION

The intersection currently operates in a NEMA eight (8) phase, semi-traffic-actuated mode. There is an exclusive left turn phase for both the east and westbound movements of MD 28. The MD 28 through movements operate concurrently with a concurrent pedestrian movement across the south leg of the intersection. There is an exclusive left turn phase for both the north and southbound movements of Shady Grove Rd. The Shady Grove Rd. through movements operate concurrently with concurrent pedestrian movements across the east and west legs of the intersection.

There shall be no operational change at the intersection.

One additional four-channel rack-mounted loop detector amplifier shall be installed in the cabinet.

CONTACT LIST

The contact persons for District #3 are as follows:

Mr. Charlie Watkins
District Engineer
301-513-7313

Mr. Majib Shakib
Assistant District Engineer - Traffic
301-513-7358

Mr. Augie Rebish
Assistant District Engineer - Utility
301-513-7350

Mr. Randy Brown
Assistant District Engineer - Maintenance
301-513-7304

Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

EQUIPMENT LIST

A. Approved S.H.A. equipment to be purchased by the Developer and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
1	EA	816	1 four-channel rack mounted loop detector amplifier.
1	EA	814	12 in., one-way, three section (RA,YA,GA) adjustable traffic signal head with span wire mounting hardware and tunnel visors.
2	EA	813	30 in x 36 in. R 3-5(L) sign with span wire mounting hardware.
1	EA	813	30 in x 36 in. R 3-5(R) sign with span wire mounting hardware.

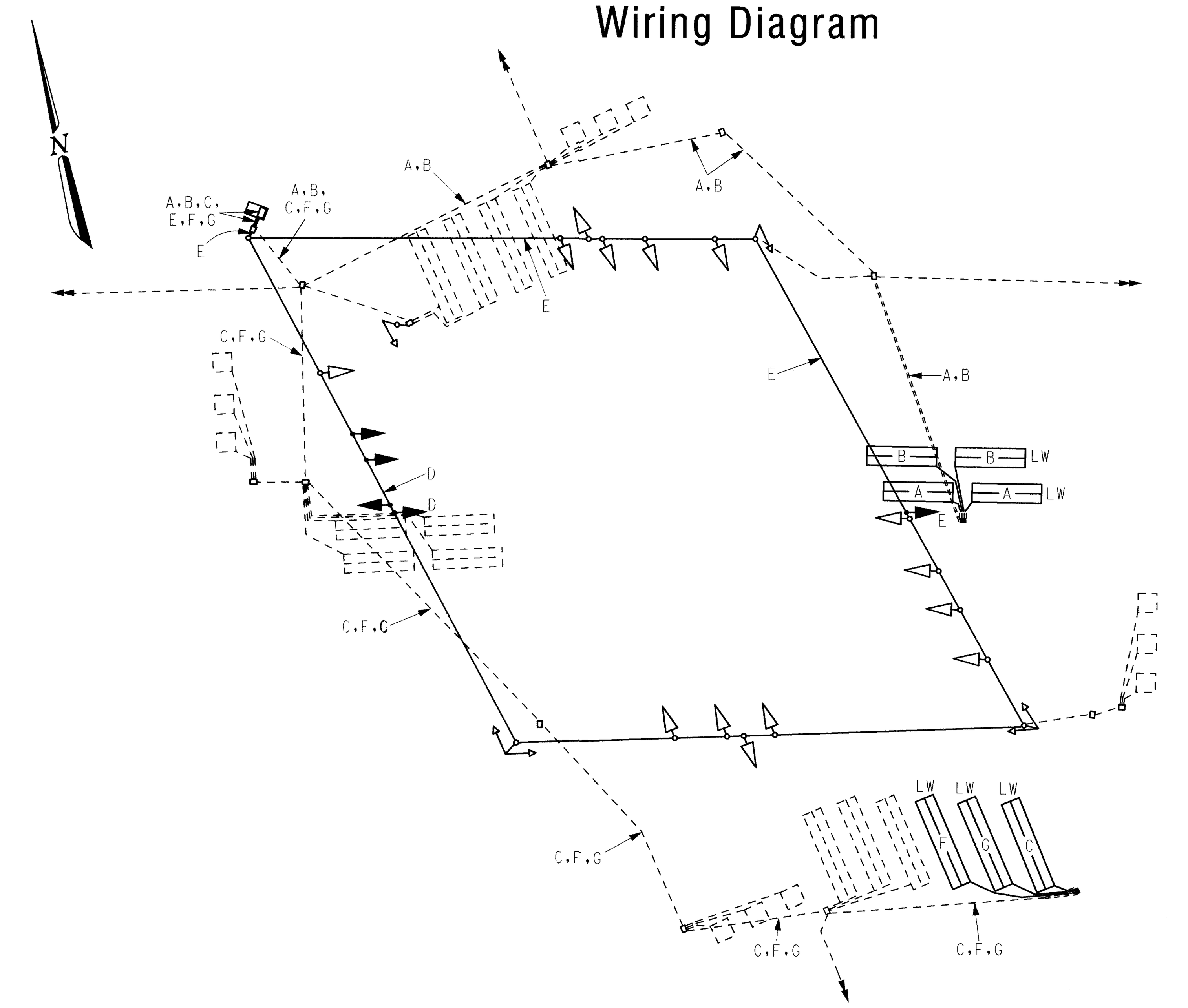
B. Equipment to be furnished and/or installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
2	EA	811	Handhole.
720	LF	815	Sawcut for signal loop detector.
2565	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
1975	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
30	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
345	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
40	LF	805	1 in. liquid tight flexible non-metalic conduit for loop detector sleeve.
15	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
85	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - bored.
105	LF	556	12 in. wide HAPPTPM - white for crosswalk.
105	LF	556	24 in. wide HAPPTPM - white for stop line.
1	EA	---	Relocate existing sign.
4	EA	---	Relocate existing signal head.
Lump Sum	LS	---	Remove existing wire.
Lump Sum	LS	---	As-built for S.H.A. [on CADD].

Phase Chart

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20-21	22-25
Phase 1 & 5	←G	←G	←G	R	R	←G	←G	←G	R	R	←R	←R	←R	R	R	←R	←R	R	R	DW	DW
1 & 5 Change to Phase 1 & 6 or Phase 2 & 5 or Phase 2 & 6																					
Phase 1 & 6	←G	←G	←G	G	G	←R	←R	←R	R	R	←R	←R	←R	R	R	←R	←R	R	R	DW	DW
1 Change	←Y	←Y	←Y	G	G	←R	←R	←R	R	R	←R	←R	←R	R	R	←R	←R	R	R	DW	DW
Phase 2 & 5	←R	←R	←R	R	R	←G	←G	←G	G	G	←R	←R	←R	R	R	←R	←R	R	R	DW	DW
5 Change	←R	←R	←R	R	R	←Y	←Y	←Y	G	G	←R	←R	←R	R	R	←R	←R	R	R	DW	DW
Phase 2 & 6	←R	←R	←R	G	G	←R	←R	←R	G	G	←R	←R	←R	R	R	←R	←R	R	R	WK	DW
Ped Clearance	←R	←R	←R	G	G	←R	←R	←R	G	G	←R	←R	←R	R	R	←R	←R	R	R	FL/DW	DW
2 & 6 Change	←R	←R	←R	Y	Y	←R	←R	←R	Y	Y	←R	←R	←R	R	R	←R	←R	R	R	DW	DW
Phase 3 & 7	←R	←R	←R	R	R	←R	←R	←R	R	R	←G	←G	←G	R	R	←G	←G	R	R	DW	DW
3 & 7 Change to Phase 3 & 8 or Phase 4 & 7 or Phase 4 & 8																					
Phase 3 & 8	←R	←R	←R	R	R	←R	←R	←R	R	R	←G	←G	←G	G	G	←R	←R	R	R	DW	DW
3 Change	←R	←R	←R	R	R	←R	←R	←R	R	R	←Y	←Y	←Y	G	G	←R	←R	R	R	DW	DW
Phase 4 & 7	←R	←R	←R	R	R	←R	←R	←R	R	R	←R	←R	←R	R	R	←G	←G	G	G	DW	DW
7 Change	←R	←R	←R	R	R	←R	←R	←R	R	R	←R	←R	←R	R	R	←Y	←Y	G	G	DW	DW
Phase 4 & 8	←R	←R	←R	R	R	←R	←R	←R	R	R	←R	←R	←R	G	G	←R	←R	G	G	DW	WK
Ped Clearance	←R	←R	←R	R	R	←R	←R	←R	R	R	←R	←R	←R	G	G	←R	←R	G	G	DW	FL/DW
4 & 8 Change	←R	←R	←R	R	R	←R	←R	←R	R	R	←R	←R	←R	Y	Y	←R	←R	Y	Y	DW	DW
Flashing Operation	FL/ ←R	FL/ ←R	FL/ ←R	FL/Y	FL/Y	FL/ ←R	FL/ ←R	FL/ ←R	FL/Y	FL/Y	FL/ ←R	FL/ ←R	FL/ ←R	FL/R	FL/R	FL/ ←R	FL/ ←R	FL/R	FL/R	DARK	DARK

Wiring Diagram



A, B, C / F, G — 2-Conductor Cable (Aluminum Shielded)

D — 5-Conductor Electrical Cable (No. 14 A.W.G.)

E — 7-Conductor Electrical Cable (No. 14 A.W.G.)

LW — Loop Detector Wire (No. 14 A.W.G.) in Flexible Tubing

The Traffic Group

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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information Plan)
MD 28 at Shady Grove Road

DRAWN BY:	J. Storck	F.A.P. NO.	N/A	TS NO. 1189E	SHEET NO.
CHECKED BY:		S.H.A. NO.	BW996M82		
SCALE:	N/A	COUNTY:	Montgomery	T.I.M.S. NO. E127-GI	
DATE:	October 22, 2001	LOG MILE:	15028019.30		2 OF 2

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